

CURRICULUM VITAE



INFORMAZIONI PERSONALI

Nome **AURICCHIO FERDINANDO**
Indirizzo **VIA FERRATA 3, 27100 PAVIA, ITALIA C/O DIPARTIMENTO DI INGEGNERIA CIVILE E ARCHITETTURA DELL'UNIVERSITÀ DEGLI STUDI DI PAVIA**
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Nazionalità Italiana

Data di nascita 1 GIUGNO 1965

ESPERIENZA LAVORATIVA

Sett. 2001 – ad oggi **Professore Ordinario** nel settore scientifico-disciplinare Scienza delle Costruzioni (ICAR-08), presso il Dipartimento di Ingegneria Civile e Architettura dell'Università degli Studi di Pavia
Nov. 1998 – Sett. 2001 **Professore Associato** nel settore scientifico-disciplinare Scienza delle Costruzioni. Presa servizio nel Novembre 1998 presso il Dipartimento di Meccanica Strutturale dell'Università degli Studi di Pavia
Sett. 1994 – Ott. 1998 **Ricercatore Universitario** nel settore scientifico-disciplinare Scienza delle Costruzioni (H07A, ICAR-08) presso il Dipartimento di Ingegneria Civile dell'Università di Roma "Tor Vergata"

ISTRUZIONE E FORMAZIONE

Settembre 1995 **Doctor of Philosophy** (Ph.D.) nel 1995 presso il Dipartimento di Ingegneria Civile dell'Università della California a Berkeley (USA)
Maggio 1991 **Master of Science** (M.S.) nel 1991 presso di Dipartimento di Ingegneria Civile dell'Università della California a Berkeley (USA)
Ottobre 1989 **Laurea in Ingegneria Civile** nel 1989 presso il Dipartimento di Tecnica delle Costruzioni della Facoltà di Ingegneria dell'Università di Napoli

CAPACITÀ LINGUISTICHE

PRIMA LINGUA **ITALIANO**

ALTRE LINGUE **INGLESE**
• Capacità di lettura ECCELLENTE
• Capacità di scrittura ECCELLENTE
• Capacità di espressione orale ECCELLENTE

CAPACITÀ E COMPETENZE
NELL'USO DI TECNOLOGIE
*Con computer, attrezzature
specifiche, macchinari, ecc.*

Sistemi operativi: MacOS, Linux, Windows, DOS.

Linguaggi di programmazione: Fortran, C, MATLAB, OCTAVE.

Applicativi: LATEX, AutoCAD, Apple iWork, MS Office, programmi a elementi finiti (FEAP, SAP, ABAQUS, LS-DYNA, ANSYS, DIANA, SAMCEF, COMSOL Multiphysics, etc.).

ALTRO / CAPACITÀ E COMPETENZE
*Competenze non
precedentemente indicate.*

- **Direttore del Dipartimento di Ingegneria Civile e Architettura**
- **Incaricato di ricerca** presso l'Istituto di Matematica Applicata e Tecnologie Informatiche del C.N.R. a Pavia
- **Responsabile del gruppo di ricerca di Meccanica Computazionale e Materiali Avanzati** (cfr. sito: www.unipv.it/compmech)
- **Coordinatore** del programma di **Dottorato internazionale in "Meccanica Computazionale e Materiali Avanzati"** dello IUSS (Istituto Universitario di Studi Superiori di Pavia) consorziato con l'Università di Pavia
- **Responsabile del gruppo di ricerca "Meccanica Computazionale e Materiali Avanzati"** presso il Centro Europeo di Formazione e Ricerca in Ingegneria Sismica (EUCENTRE) di Pavia
- **Membro del comitato scientifico** del Centro di Simulazione Numerica Avanzata (CeSNA) dello IUSS
- **Membro del Managing Board e dell'Executive Committee** dell'ECCOMAS (European Community of Computational Methods in Applied Sciences)
- **Adjunct Professor**, Department of Engineering Mathematics and Internetworking, Faculty of Engineering, Dalhousie University, Canada
- **Adjunct Professor**, Faculty of Graduate Studies at Dalhousie University
- **Corresponding Editor** di Computer Modeling in Engineering & Sciences
- **Membro dell'Editorial Board** di diverse riviste internazionali fra cui: Journal of Computational Bioengineering, Computer Assisted Methods in Engineering and Science, Advanced Modelling and Simulation in Engineering Sciences, Computational Mechanics, Computer Methods in Applied Mechanics in Engineering, Annals of Solid and Structural Mechanics, International Journal for Numerical Methods in Engineering
- **Revisore** di diverse riviste internazionali
- **Supervisore** di 6 assegnisti post-doc, 20 studenti di dottorato, 8 studenti di master e più di 30 tesisti
- IACM (International Association for Computational Mechanics) Fellow Award 2012
- Vincitore di diversi **finanziamenti alla ricerca** come leader di progetto o di unità locale; in particolare si citano i 2 finanziamenti al momento attivi:
 - "Advanced mechanical modeling of new materials and technologies for the solution of 2020 European challenges", finanziato dal MIUR, **321.429€**, 2012-2015;
 - "Aortic Valve Sparing: toward an innovative PROsthesis design (through the exploitation of advanced materials and computational mechanics)", finanziato dalla Fondazione Cariplo, **549285€**, 2009-2013.

PUBBLICAZIONI

- Più di 110 pubblicazioni su riviste internazionali con **h-index = 26** sia secondo ISI Web of Knowledge sia secondo SCOPUS
- Più di 50 presentazioni su invito a conferenze internazionali

ALLEGATI

Allegato 1: Principali Pubblicazioni su Riviste internazionali

ALLEGATO 1

PRINCIPALI PUBBLICAZIONI su RIVISTE INTERNAZIONALI

1. F. Auricchio, E. Bonetti. A new flexible 3D macroscopic model for shape memory alloys. *Discrete and Continuous Dynamical Systems*, 6 (2013), 277-291.
2. F. Auricchio, M. Conti, A. Ferrara, S. Morganti, A. Reali. Patient-specific simulation of a stentless aortic valve implant: the impact of fibers on leaflet performance. Published online on *Computer Methods in Biomechanics and Biomedical Engineering*, doi:10.1080/10255842.2012.681645.
3. F. Auricchio, M. Conti, A. Ferrara, S. Morganti, A. Reali. Patient-specific finite element analysis of carotid artery stenting: a focus on vessel modeling. Published online on *International Journal for Numerical Methods in Biomedical Engineering*, doi:10.1002/cnm.2511.
4. F. Auricchio, M. Conti, S. Morganti, A. Reali. Simulation of transcatheter aortic valve implantation: a patient-specific finite element approach. Accepted for publication on *Computer Methods in Biomechanics and Biomedical Engineering*.
5. D. Asprone, F. Auricchio, A. Reali. Modified Finite Particle Method: applications to elasticity and plasticity problems. Accepted for publication on *International Journal of Computational Methods*.
6. F. Auricchio, M. Conti, S. Marconi, A. Reali, J. Tolenaar, S. Trimarchi. Patient-specific aortic endografting simulation: from diagnosis to prediction. Accepted for publication on *Computers in Biology and Medicine*.
7. G. De Santis, M. Conti, B. Trachet, T. De Schryver, M. De Beule, J. Degroote, J. Vierendeels, F. Auricchio, P. Segers, P. Verdonck, B. Verheghe, F. Auricchio. Hemodynamic impact of stent-vessel (mal)apposition following carotid artery stenting: mind the gaps!. Published online on *Computer Methods in Biomechanics and Biomedical Engineering*, doi: 10.1080/10255842.2011.629997.
8. P. Totaro, S. Morganti, C. L. Ngo Yon, R. Dore, M. Conti, F. Auricchio, M. Viganò. "Computational Finite Element Analyses to Optimize Graft Sizing During Aortic Valve-Sparing Procedure", *The Journal of Heart Valve Disease*, 21: 141-147 (2012)
9. H.A.F. Argente dos Santos, F. Auricchio, M. Conti. "Fatigue life assessment of cardiovascular balloon-expandable stents: A two-scale plasticity-damage model approach", *Journal of the Mechanical Behavior of Biomedical Materials*, 15: 78-92 (2012)
10. F. Auricchio, A. Ferrara, S. Morganti. "Comparison and critical analysis of invariant-based models with respect to their ability in fitting human aortic valve data", *Annals of Solid and Structural Mechanics*, 4:1-14 (2012)
11. F. Auricchio, L. Beirao da Veiga, T.J.R. Hughes, A. Reali, G. Sangalli. "Isogeometric collocation for elastostatics and explicit dynamics", *Computer Methods in Applied Mechanics and Engineering*, 249-252:2-14 (2012)
12. F. Auricchio, F. Calabrò, T.J.R. Hughes, A. Reali, G. Sangalli. "A Simple Algorithm for Obtaining Nearly Optimal Quadrature Rules for NURBS-based Isogeometric Analysis", *Computer Methods in Applied Mechanics and Engineering*, 249-252:15-27 (2012)
13. F. Auricchio, M. Conti, M. Ferraro, A. Reali. "Evaluation of carotid stent scaffolding through patient-specific finite element analysis", *International Journal for Numerical Methods in Biomedical Engineering*, 28:1043-1055 (2012)
14. F. Auricchio, M. Conti, S. Morganti, P. Totaro. "A computational tool to support pre-operative planning of stentless aortic valve prosthesis", *Medical Engineering & Physics*, 33: 1183-1192 (2011)
15. F. Auricchio, M. Conti, S. Demertzis, S. Morganti. "A Finite element analysis of aortic root dilation: a new procedure to reproduce pathology based on experimental data", *Computer Methods in Applied Mechanics and Biomedical Engineering*, 14: 875-882 (2011)
16. P. Totaro, S. Morganti, F. Auricchio, M. Viganò. "Computer-based analysis to optimize prosthesis sizing during aortic valve surgery", *International Journal of Cardiology*, 151: 253-254 (2011)
17. F. Auricchio, S. Morganti, A. Reali, M. Urbano. "Theoretical and experimental study of the shape memory effect of beams in bending conditions", *Journal of Materials Engineering and Performance*, 20: 712-718 (2011)

18. G. Attanasi, F. Auricchio. "Innovative Superelastic Isolation Device", *Journal of Earthquake Engineering*, 15: 72-89 (2011)
19. M. Conti, D. Van Loo, F. Auricchio, M. De Beule, G. De Santis, B. Verheghe, S. Pirrelli, A. Odero. "Impact of Carotid Stent Cell Design on Vessel Scaffolding: A Case Study Comparing Experimental Investigation and Numerical Simulations", *Journal of Endovascular Therapy*, 18: 397-406 (2011)
20. J. Arghavani, F. Auricchio, R. Naghdabadi, A. Reali. "An improved, fully symmetric, finite-strain phenomenological constitutive model for shape memory alloys", *Finite Elements in Analysis and Design*, 47: 166-174 (2011)
21. G. Attanasi, F. Auricchio, M. Urbano. "Theoretical and Experimental Investigation on SMA Superelastic Springs", *Journal of Materials Engineering and Performance*, 20: 706-711 (2011)
22. J. Arghavani, F. Auricchio, R. Naghdabadi, A. Reali. "On the robustness and efficiency of integration algorithms for a 3D finite strain phenomenological SMA constitutive model", *International Journal for Numerical Methods in Engineering*, 85: 107-134 (2011)
23. O. Ben Mekki, F. Auricchio. "Performance evaluation of shape-memory-alloy superelastic behavior to control a stay cable in cable-stayed bridges", *International Journal of Non-Linear Mechanics*, 46: 470-477 (2011)
24. F. Auricchio, A.-L. Bessoud, A. Reali, U. Stefanelli. "A three-dimensional phenomenological model for Magnetic Shape Memory Alloys", *GAMM- Mitteilungen*, 34: 90-96 (2011)
25. F. Auricchio, M. Conti, M. De Beule, G. De Santis, B. Verheghe. "Carotid artery stenting simulation: From patient-specific images to finite element analysis", *Medical Engineering & Physics* 33: 281-289 (2011)
26. J. Arghavani, F. Auricchio, R. Naghdabadi. "A finite strain kinematic hardening constitutive model based on Hencky strain: general framework, solution algorithm and application to shape memory alloys", *International Journal of Plasticity* 27 : 940-961 (2011)
27. D. Asprone, F. Auricchio, A. Reali. "Novel Finite Particle Formulations Based on Projection Methodologies", *International Journal for Numerical Methods in Fluids*, 65: 1376-1388 (2011)
28. J. Arghavani, F. Auricchio, R. Naghdabadi, A. Reali, S. Sohrabpour. "A 3D finite strain phenomenological constitutive model for shape memory alloys considering martensite reorientation", *Continuum Mechanics and Thermodynamics*, 22: 345-362 (2010)
29. F. Auricchio, G. Balduzzi, C. Lovadina. "A new modeling approach for planar beams: finite-element solutions based on mixed variational derivations", *Journal of Mechanics of Materials and Structures*, 5: 771-794 (2010)
30. D. Asprone, F. Auricchio, G. Manfredi, A. Prota, A. Reali, G. Sangalli. "SPH methods for a 1D elastic model problem: error analysis and development of a second-order accurate formulation", *Computer Modeling in Engineering & Sciences (CMES)*, 62: 1-22 (2010)
31. F. Auricchio, M. Conti, S. Morganti, A. Reali. "Shape Memory Alloy: from constitutive modelling to finite element analysis of stent deployment", *Computer Modeling in Engineering & Sciences (CMES)*, 57: 225-243 (2010)
32. F. Auricchio, L. Beirão da Veiga, T.J.R. Hughes, A. Reali, G. Sangalli. "Isogeometric Collocation Methods", *Mathematical Models and Methods in Applied Sciences*, 20: 2075-2107 (2010)
33. F. Auricchio, E. Bonetti, A. Marigonda. "A metric approach to plasticity via Hamilton-Jacobi equation", *Mathematical Models and Methods in Applied Sciences*, 20: 1617-1647 (2010)
34. F. Auricchio, A. Reali, A. Tardugno. "Shape-memory alloys: effective 3D modeling, computational aspects and design of devices", *International Journal of Computer Applications in Technology*, 3: 199-223 (2010)
35. J. Arghavani, F. Auricchio, R. Naghdabadi, A. Reali, S. Sohrabpour. "A 3D phenomenological constitutive model for shape memory alloys under multiaxial loadings", *International Journal of Plasticity*, 26: 976-991 (2010)
36. F. Auricchio, L. Beirão da Veiga, C. Lovadina, A. Reali. "The importance of the exact satisfaction of the incompressibility constraint in nonlinear elasticity: mixed FEMs versus NURBS-based approximations", *Computer Methods in Applied Mechanics and Engineering*, 199: 314-323 (2010)
37. F. Auricchio, A. Coda, A. Reali, M. Urbano. "SMA numerical modeling versus experimental results: parameter identification and model prediction capabilities", *Journal of Materials Engineering and*

- Performance, 18:649-654 (2009)
38. M.Conti, M.De Beule, P.Mortier, D.Van Loo, P.Verdonck, F.Vermassen, P.Segers, B.Verhegghe, F.Auricchio. "Nitinol Embolic Protection Filters: Design Investigation By Finite Element Analysis", *Journal of Materials Engineering and Performance*. 18:787-792 (2009)
 39. G.Attanasi, F.Auricchio, G.L.Fenves. "Feasibility investigation of superelastic effect devices for seismic isolation applications", *Journal of Materials Engineering and Performance*, 18:729-737 (2009)
 40. F.Auricchio, A.Reali, U.Stefanelli. "A macroscopic 1D model for shape memory alloys including asymmetric behaviors and transformation-dependent elastic properties", *Computer Methods in Applied Mechanics and Engineering*, 198:1631-1637 (2009)
 41. G.Attanasi, F.Auricchio, G.L.Fenves. "Feasibility assessment of an innovative isolation bearing system with shape memory alloys" *Journal of Earthquake Engineering*, 13: 18-39 (2009)
 42. F.Auricchio, A.Reali. "Shape Memory Alloys: Material Modeling and Device Finite Element Simulations". *Materials Science Forum*, 583:257-275 (2008)
 43. F.Auricchio, P.Carotenuto, A.Reali. "On the geometrically exact beam model: a consistent, effective and simple derivation from three-dimensional finite elasticity", *International Journal of Solids and Structures*, 45:4766-4781 (2008)
 44. F.Auricchio, D.Fugazza, R.DesRoches. "Rate-dependent thermo-mechanical modelling of superelastic shape memory alloys for seismic applications", *Journal of Intelligent Material Systems and Structures*, 19:47-61 (2008)
 45. F.Auricchio, A.Mielke, U.Stefanelli, "A rate-independent model for the isothermal quasi-static evolution of shape-memory materials", *Mathematical Models and Methods in Applied Sciences*, 18:125-164 (2008)
 46. J.McCormick, R.DesRoches, D.Fugazza, F.Auricchio, "Seismic assessment of concentrically-braced steel frames with shape memory alloy braces ", *ASCE Journal of Structural Engineering* 133:862-870 (2007)
 47. E.Artioli, F.Auricchio, L.Beirao da Veiga, "Generalized midpoint integration algorithms for J2 plasticity with linear hardening", *International Journal for Numerical Methods in Engineering*, 72:422-463 (2007)
 48. F.Auricchio, L.Beirao da Veiga, A.Buffa, C.Lovadina, A.Reali, G.Sangalli "A fully locking-free isogeometric approach for plane linear elasticity problems: a stream function formulation", *Computer Methods in Applied Mechanics and Engineering*, 197:160-172 (2007)
 49. F.Auricchio, D.Fugazza, R.DesRoches, "A 1D rate-dependent viscous constitutive model for superelastic shape-memory alloys: formulation and comparison with experimental data", *Smart Materials and Structures*, vol.16: S39-S50 (2007)
 50. F.Auricchio, A.Reali, U.Stefanelli, "A three-dimensional model describing stress-induced solid phase transformation with permanent inelasticity", *International Journal of Plasticity*, 23:207-226 (2007)
 51. E.Artioli, F.Auricchio, L.Beirao da Veiga, "Second-order accurate integration algorithms for von-Mises plasticity with a nonlinear kinematic hardening mechanism", *Computer Methods in Applied Mechanics and Engineering*, 196:1827-1846 (2007)
 52. F.Auricchio, A.Reali. "A Phenomenological One-dimensional Model Describing Stress-induced Solid Phase Transformation with Permanent Inelasticity", *Mechanics of Advanced Materials and Structures*, 14:43-55 (2007)
 53. E.Artioli, F.Auricchio, L.Beirao da Veiga, "A novel optimal exponential-based integration algorithm for von-Mises plasticity with linear hardening: Theoretical analysis on yield consistency, accuracy, convergence and numerical investigations ", *International Journal for Numerical Methods in Engineering*, 67:449-498 (2006)
 54. F.Auricchio, D.Fugazza and R.DesRoches, "Numerical and experimental evaluation of the damping properties of shape-memory alloys" *Journal of Engineering Materials and Technology*, *Transactions of the ASME* 128:312-319 (2006)
 55. J. McCormick, R. DesRoches, D. Fugazza, F. Auricchio, "Seismic vibration control using superelastic shape memory alloys " *Journal of Engineering Materials and Technology*, *Transactions of the ASME* 128:294-301 (2006)
 56. F.Auricchio, E.Sacco, G.Vairo, "A mixed FSDT finite element for monoclinic laminated plates", *Computers & Structures*, 84:624-639 (2006)

57. F.Nanni, F.Auricchio, F.Sarchi, G.Forte, G.Gusmano, "Self-sensing CF-GFRP rods as mechanical reinforcement and sensors of concrete beams", *Smart Materials and Structures*, 15:182-186 (2006)
58. F.Auricchio, D.Fugazza, R.DesRoches, "Earthquake Performance of Steel Frames with Nitinol Braces", *Journal of Earthquake Engineering*, 10: 45-66 (2006)
59. L.Petrini, F.Migliavacca, P.Massarotti, S.Schievano, G.Dubini, F.Auricchio "Computational studies of Shape Memory Alloy behaviour in biomedical applications", *ASME Journal of Biomechanical Engineering* 127:716-725 (2005)
60. E.Artioli, F.Auricchio, L.Beirao da Veiga, "Integration schemes for von-Mises plasticity based on exponential maps: numerical investigations and theoretical considerations", *International Journal for Numerical Methods in Engineering* 64:1133-1165 (2005)
61. F.Auricchio, U.Stefanelli, "Well-posedness and approximation for a one-dimensional model for shape memory alloys", *Mathematical Models & Methods in Applied Sciences*, 15:1301-1327 (2005)
62. F.Auricchio, L.Beirao da Veiga, C.Lovadina, A.Reali, "A Stability Study of some Mixed Elements for Finite Elasticity Problems", *Computer Methods in Applied Mechanics and Engineering*, 194:1075-1092 (2005)
63. F.Auricchio, L.Beirao da Veiga, C.Lovadina, A.Reali, "An Analysis of some Mixed-Enhanced Finite Element for Plane Linear Elasticity", *Computer Methods in Applied Mechanics and Engineering*, 194:2947-2968 (2005)
64. F.Migliavacca, L.Petrini, V.Montanari, I.Quagliana, F.Auricchio, G.Dubini, "A predictive study of the mechanical behaviour of coronary stents by computer modeling", *Medical Engineering & Physics*, 27:13-18 (2005)
65. F.Auricchio, C.Lovadina, A.L.Madureira, "An asymptotically optimal model for isotropic heterogeneous linearly elastic plates", *ESAIM Mathematical Modelling and Numerical Analysis*, 38:877-897 (2004)
66. F.Migliavacca, L.Petrini, P.Massarotti, S.Schievano, F.Auricchio, G.Dubini, "Stainless and shape memory alloy coronary stents: a computational study on the interaction with the vascular wall" *Biomechanics and Modeling in Mechanobiology*, 2:205-217 (2004)
67. F.Auricchio, U.Stefanelli, "Numerical Analysis of a three-dimensional super-elastic constitutive model", *International Journal for Numerical Methods in Engineering*, 61:142-155 (2004)
68. F.Auricchio, L.Petrini, "A three-dimensional model describing stress-temperature induced solid phase transformations: solution algorithm and boundary value problems", *International Journal for Numerical Methods in Engineering*, 61:807-836 (2004)
69. F.Auricchio, L.Petrini, "A three-dimensional model describing stress-temperature induced solid phase transformations: thermomechanical coupling and hybrid composite applications", *International Journal for Numerical Methods in Engineering*, 61:716-737 (2004)
70. L.Petrini, F.Migliavacca, F.Auricchio, G.Dubini, "Numerical investigation of the intravascular coronary stent flexibility", *Journal of Biomechanics*, 37:495-501 (2004)
71. G.M.Calvi, P.Ceresa, D.Bolognini, C.Casarotti, F.Auricchio, "Effects of axial force variation in the seismic response of bridges isolated with friction pendulum systems", *Journal of Earthquake Engineering*, 8:187-224 (2004)
72. R.L.Taylor, F.C.Filippou, A.Saritas, F.Auricchio, "Mixed finite element method for beam and frame problems", *Computational Mechanics*, 31:192-203 (2003)
73. F.Auricchio, S. Marfia, E.Sacco, "Modeling of SMA materials: training and two way shape memory effects", *Computers & Structures*, 81:2301-2317 (2003)
74. V.Cacciafesta, M.F.Sfondrini, A.Scribante, F.Auricchio, "Evaluation of friction of stainless steel and esthetic self-ligating brackets in various bracket-archwire combinations", *American Journal of Orthodontics and Dentofacial Orthopedics*, 124:395-402 (2003)
75. V.Cacciafesta, M.F.Sfondrini, A.Scribante, C.Klersy, F.Auricchio, "Evaluation of friction of conventional and metal-insert ceramic brackets in various bracket-archwire combinations", *American Journal of Orthodontics and Dentofacial Orthopedics* 124:403-409 (2003)
76. F.Auricchio, E.Sacco, "Refined first-order shear deformation theory models for composite laminates", *Journal of Applied Mechanics*, 70:381-390 (2003)

77. C.Lovadina, F.Auricchio, "On the enhanced strain technique for elasticity problems", *Computer & Structures*, 81:777-787 (2003)
78. F.Auricchio, L.Petrini, R.Pietrabissa, E.Sacco, "Numerical modeling of shape-memory alloys in orthodontics", *Computer Modeling in Engineering & Sciences*, 4:365-380 (2003)
79. F.Auricchio, L.Beirao da Veiga, "On a new integration scheme for von-Mises plasticity with linear hardening", *International Journal for Numerical Methods in Engineering*, 56:1375-1396 (2003)
80. F.Auricchio, L.Petrini, "Improvements & algorithmical considerations on a recent three-dimensional model describing stress-induced solid phase transformations", *International Journal for Numerical Methods in Engineering*, 55:1255-1284 (2002)
81. F.Auricchio, L.Beirao da Veiga, C.Lovadina, "Remarks on the asymptotic behaviour of Koiter shells", *Computer & Structures*, 80:735-745 (2002)
82. F. Migliavacca, L. Petrini, M. Colombo, F.Auricchio, R.Pietrabissa, "Mechanical behavior of coronary stents investigated through the finite element method", *Journal of Biomechanics*, 35:803-811 (2002)
83. F.Auricchio, E.Sacco, "On the thermo-mechanical response of a superelastic shape-memory wire under cyclic stretching-bending loadings", *International Journal Solids and Structures*, 38:6123-6145 (2001)
84. F.Auricchio, "A robust integration-algorithm for a finite-strain shape-memory-alloy superelastic model", *International Journal of Plasticity*, 17:971-990 (2001)
85. F.Auricchio, M. Di Loreto, E.Sacco, "Finite element analysis of a stenotic artery revascularization through stent insertion", *Computer Methods in Biomechanics and Biomedical Engineering*, 4:249-263 (2001)
86. M.Arrigoni, F.Auricchio, V.Cacciafesta, L.Petrini, R.Pietrabissa, "Mechanical characterisation of orthodontic superelastic Ni-Ti wires", *Journal de Physique IV*, 11:509-514 (2001)
87. F.Auricchio, "Three-dimensional modeling of shape-memory materials", *Journal de Physique IV*, 11:577-582 (2001)
88. G.Alfano, F.Auricchio, L.Rosati, E.Sacco, "MITC finite elements for laminated composite plates", *International Journal for Numerical Methods in Engineering*, 50:707-738 (2001)
89. F.Auricchio, P.Bisegna, C.Lovadina, "Finite element approximation of piezoelectric plates", *International Journal for Numerical Methods in Engineering*, 50:1469-1499 (2001)
90. F.Auricchio, C.Lovadina, E.Sacco, "Analysis of mixed finite elements for laminated composite plates", *Computer Methods in Applied Mechanics and Engineering*, 190:4767-4783 (2001)
91. F.Auricchio, C.Lovadina, "Analysis of kinematic linked interpolation methods for Reissner-Mindlin plate problems", *Computer Methods in Applied Mechanics and Engineering*, 190:2465-2482 (2001)
92. F.Auricchio, C.Lovadina, "Partial selective reduced integration schemes and kinematic linked interpolations for plate bending problems", *Mathematical Models and Methods in Applied Sciences*, 9:693-722 (1999)
93. F.Auricchio, E.Sacco, "Partial mixed formulation and refined models for the analysis of composite laminates with a FSdT", *Composites Structures*, 46:103-113 (1999)
94. F.Auricchio, E.Sacco, "A mixed-enhanced finite-element for the analysis of laminated composite plates", *International Journal for Numerical Methods in Engineering*, 44:1481-1504 (1999)
95. F.Auricchio, E.Sacco, "A temperature-dependent beam for shape-memory alloys: constitutive modelling, finite-element, implementation and numerical simulations", *Computer Methods in Applied Mechanics and Engineering*, 174:171-190 (1999)
96. F.Auricchio, R.L.Taylor "A return-map algorithm for general associative isotropic elasto-plastic materials in large deformation regimes", *International Journal of Plasticity*, 15:1359-1378 (1999)
97. C.Callari, F.Auricchio, E.Sacco, "A finite-strain Cam-clay model in the framework of multiplicative elasto-plasticity", *International Journal of Plasticity*, 14:1155-1187 (1998)
98. A.Masud, M.Panahandeh, F.Auricchio, "A finite-strain finite element model for the pseudoelastic behavior of shape memory alloys", *Computer Methods in Applied Mechanics and Engineering*, 148:23-37 (1997)
99. F.Auricchio, "A viscoplastic constitutive equation bounded between two generalized plasticity models", *International Journal of Plasticity*, 13:697-721, (1997)
100. F.Auricchio, E.Sacco, "A one-dimensional model for superelastic shape-memory alloys with different elastic properties between austenite and martensite", *International Journal of Nonlinear Mechanics*,

32:1101-1114 (1997)

101. F.Auricchio, E.Sacco, "A superelastic shape-memory-alloy beam model", *Journal of Intelligent Materials and Structures*, 8:489-501 (1997)
102. F.Auricchio, R.L.Taylor, "Shape-memory alloys: modelling and numerical simulations of the finite-strain superelastic behavior", *Computer Methods in Applied Mechanics and Engineering*, 143:175-194 (1997)
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